

=> fil reg

FILE 'REGISTRY' ENTERED AT 14:36:46 ON 26 MAR 2008

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STRUCTURE FILE UPDATES: 25 MAR 2008 HIGHEST RN 1010115-69-1

DICTIONARY FILE UPDATES: 25 MAR 2008 HIGHEST RN 1010115-69-1

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

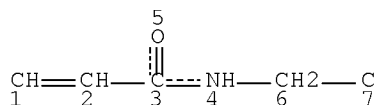
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=> d sta que 174

L58 STR



NODE ATTRIBUTES:

NSPEC IS RC AT 7

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

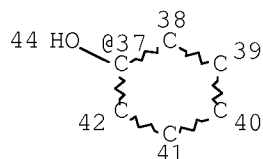
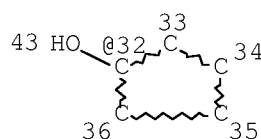
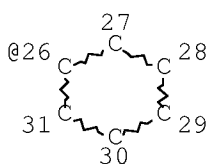
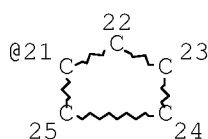
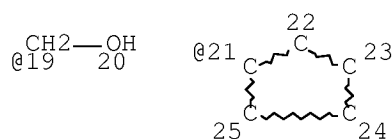
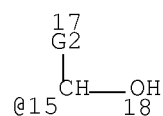
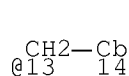
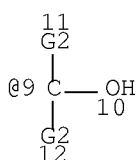
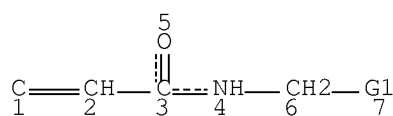
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NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L60 42913 SEA FILE=REGISTRY SSS FUL L58

L61 STR



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VAR G2=AK/ID/PH/13

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GGCAT IS MCY UNS AT 14

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 14

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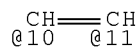
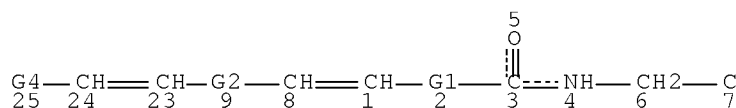
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NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE

L63 1639 SEA FILE=REGISTRY SUB=L60 CSS FUL L61

L72 STR



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REP G2=(1-3) CH2

VAR G4=AK/ID

NODE ATTRIBUTES:

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CONNECT IS M1 RC AT 7

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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RING(S) ARE ISOLATED OR EMBEDDED

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STEREO ATTRIBUTES: NONE

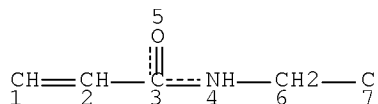
L74 22 SEA FILE=REGISTRY SUB=L63 SSS FUL L72

100.0% PROCESSED 169 ITERATIONS  
 SEARCH TIME: 00.00.01

22 ANSWERS

=> d sta que 166

L58 STR



NODE ATTRIBUTES:

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DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

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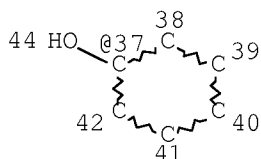
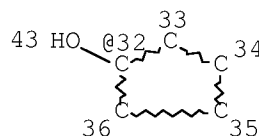
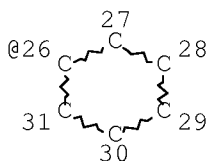
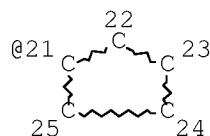
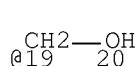
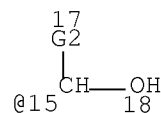
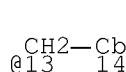
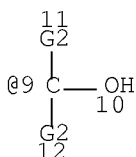
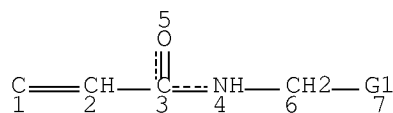
RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L60 42913 SEA FILE=REGISTRY SSS FUL L58

L61 STR



VAR G1=ME/13/15/9/19/21/26/32/37

VAR G2=AK/ID/PH/13

NODE ATTRIBUTES:

CONNECT IS M1 RC AT 1

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 14

DEFAULT ECLEVEL IS LIMITED

ECOUNT IS E6 C AT 14

GRAPH ATTRIBUTES:

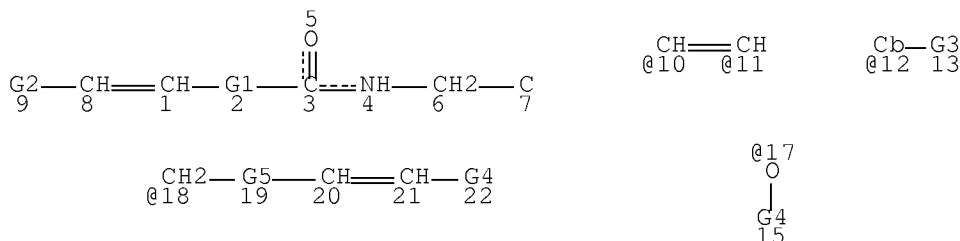
RSPEC 21 26 32 37

NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE

L63 1639 SEA FILE=REGISTRY SUB=L60 CSS FUL L61

L64 STR



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VAR G2=PH/12/18

VAR G3=AK/ID/17

VAR G4=AK/ID

REP G5=(0-2) CH2

NODE ATTRIBUTES:

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CONNECT IS M1 RC AT 7

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 12

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L66 94 SEA FILE=REGISTRY SUB=L63 CSS FUL L64

100.0% PROCESSED 1639 ITERATIONS

94 ANSWERS

SEARCH TIME: 00.00.01

=&gt; fil hcaplus

FILE 'HCAPLUS' ENTERED AT 14:37:37 ON 26 MAR 2008

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FILE COVERS 1907 - 26 Mar 2008 VOL 148 ISS 13

FILE LAST UPDATED: 25 Mar 2008 (20080325/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d bib abs hitind hitstr retable tot 1111

L111 ANSWER 1 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:983777 HCAPLUS Full-text

DN 143:266752

TI Processes for preparing (2E,4E,8Z)-2,4,8-undecatrienoic acid and ester and carboxamide derivatives and organoleptic uses thereof

IN Dewis, Mark L.; Huber, Michelle E.

PA International Flavors & Fragrances Inc., USA

SO U.S. Pat. Appl. Publ., 12 pp., Cont.-in-part of U.S. Ser. No. 618,367.

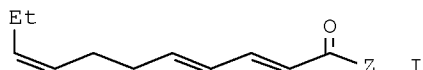
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

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PI	US 2005197387	A1	20050908	US 2004-861751	20040604 <--
	US 7098350	B2	20060829		
	US 2005010062	A1	20050113	US 2003-618367	20030710 <--
	US 7141686	B2	20061128		
	IN 2004DE01233	A	20060721	IN 2004-DE1233	20040701 <--
	EP 1496042	A2	20050112	EP 2004-254095	20040708 <--
	EP 1496042	A3	20050309		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	CN 1706788	A	20051214	CN 2004-10063646	20040709 <--
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	US 2004-861751	A	20040604		
OS	CASREACT 143:266752; MARPAT 143:266752				
GI					

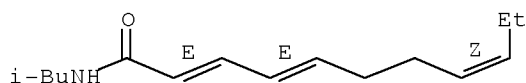


AB Described is a genus of undecatrienoic acid derivs. I [Z = NRR1, OR2; R = H, Me, Et; R1 = Me, Et, Pr, cyclopropyl, iso-Pr, Bu, s-Bu, iso-Bu, 2-methylbutyl, cyclobutyl, piperonyl, cyclopentyl, allyl; R2 = H, (un)branched C1-6-alkyl, C3-6-alkenyl] useful in imparting, augmenting and/or enhancing flavors, aromas and somatosensory effects in or to consumable materials such as foods, beverages, skin care products, oral care products, medicinal products and the like. Also described is a synthesis process for producing such derivs. The process comprises: (a) oxidation of (2E,4E,8Z)-2,4,8-undecatrienal with Ag2O in aqueous alkali hydroxide, followed by acidifying the product; (b) reacting the acid with an alkyl haloformate in the presence of a tertiary amine; (c) reacting the intermediate mixed anhydride with either an amine, RR1NH, to form the amide, or reacting with an alc., R2OH, to form the ester. Thus, (2E,4E,8Z)-N-(isobutyl)-2,4,8-undecatrienamide [I; Z = NHCH2CHMe2], was prepared from (2E,4E,8Z)-2,4,8-undecatrienal [Z = H] via oxidation with Ag2O in aqueous NaOH, acidification with aqueous HCl, reaction with ClCO3Et in the presence of Et3N, then amination with Me2CHCH2NH2.

IC ICM A61K0031-202

ICS A61K0031-16; A61K0031-20  
 INCL 514464000; X51-456.0; X51-462.7; X55-4 3.5; X55-422.3  
 CC 26-3 (Biomolecules and Their Synthetic Analogs)  
 Section cross-reference(s): 17, 62, 63  
 IT Beverages  
   Candy  
   Chewing gum  
   Drugs  
     (flavor enhancers for; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)  
 IT Condiments  
   (flavor-enhancing; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)  
 IT Dentistry  
   (oral care products, flavor enhancers for; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)  
 IT Food additives  
   Human  
   Odor and Odorous substances  
   Taste  
     (preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)  
 IT Cooperative phenomena  
   (synergism, with aroma, taste or somatosensory agents; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)  
 IT 652970-05-3P, (2E,4E,8Z)-N-(Isobutyl)-2,4,8-undecatrienamide  
   RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
     (preparation and organoleptic uses of; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)  
 IT 652970-05-3P, (2E,4E,8Z)-N-(Isobutyl)-2,4,8-undecatrienamide  
   RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
     (preparation and organoleptic uses of; preparation of (2E,4E,8Z)-2,4,8-undecatrienoic acid ester and carboxamide derivs. and their organoleptic uses)  
 RN 652970-05-3 HCAPLUS  
 CN 2,4,8-Undecatrienamide, N-(2-methylpropyl)-, (2E,4E,8Z)- (CA INDEX NAME)

Double bond geometry as shown.



# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Albacarys	2002			US 6338855 B1	HCAPLUS
Anon	1970			JP 04803546	
Anon	1976			GB 1438205	HCAPLUS
Anon	1981			JP 56087505	HCAPLUS
Anon	1993			WO 9323005	HCAPLUS
Anon	1998			WO 9807404	HCAPLUS
Anon	1999			WO 9907235	HCAPLUS

Anon	2000			WO 0/45815	HCAPLUS
Anon	2001			EP 1121927 A2	HCAPLUS
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Anon	2001			EP 1122233 A1	HCAPLUS
Anon	2002				
Anon	2002			WO 0/051392	
Anon	2003			WO 2004000787 A2	HCAPLUS
Anon	2004			WO 2004011415	HCAPLUS
Anon	2004			WO 2004043906	HCAPLUS
Anon	2001	55	53	Food Technology	
Anon	1952		4338	J Chem Soc	
Anon	1953	75	2584	Martine Jacobson	
Anon				Search for Unsaturat	
Beerse	2001			US 6210695 B1	HCAPLUS
Beerse	2001			US 6294186 B1	HCAPLUS
Bell	2003			US 20030113357 A1	
Boden	2001			US 6303817 B1	HCAPLUS
Borlinghaus	2003			US 6572914 B1	HCAPLUS
Buchel	1984			US 4472421 A	HCAPLUS
Buckingham	2003			US 20030082129 A1	
Cherukuri	1991			US 5009893 A	HCAPLUS
Coffindaffer	1997			US 5624666 A	HCAPLUS
Crombie, L	1955		4244	Journal of Chemical	HCAPLUS
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Dewis	2003				
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Galophin	2002		139	Abs. of Papers of th	
Galopin			139	Challenges in Taste	
Gamboa-Leon, R	2000	28	1019	Biochemical Systemat	HCAPLUS
Gamboa-Leon, R	2000	28	1019	Biochemical Systemat	HCAPLUS
Gatfield	2004			US 20040241312 A1	
Grainger	2002			US 6365215 B1	HCAPLUS
Guskey	2001			US 6297203 B1	HCAPLUS
Hall	2003			US 6579514 B1	HCAPLUS
Hammer	2003			US 20030082124 A1	HCAPLUS
He	2000			US 6110520 A	HCAPLUS
Hirokazu, T	1981	22	3421	Tetrahedron Letters	
Humbert	1977			US 4029759 A	HCAPLUS
Jaloner	1980	18	2933	Journal of Polymer S	
Jarboe	1963			US 3111127 A	HCAPLUS
Johnson	2003			US 20030072842 A1	HCAPLUS
Kollmannsberger, H	1992	14	87	Chem. Mikrobiol. Tec	HCAPLUS
Kumamoto	2002			US 20020142015 A1	
Lee	2002			US 6391886 B1	HCAPLUS
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Light	2003			US 20030095936 A1	HCAPLUS
Mane	1998			US 5725865 A	HCAPLUS
Mane	1998			US 5843466 A	HCAPLUS
Mansouri	2003			US 6579516 B1	HCAPLUS
McClung	2003			US 6579543 B1	HCAPLUS
Mohammadi	2002			US 20020012640 A1	
Nakatani, N	1992	56	759	Bioscience Biotechno	HCAPLUS
Nakatsu	1996			US 5545424 A	HCAPLUS
Ottinger	2001	49	5383	J. Agric. Food Chem.	HCAPLUS
Rapaport	1998			US 5730965 A	HCAPLUS
Raphael	1949	164	707	Chem. Abstr. of Natu	HCAPLUS
Reed	2001			US 6299900 B1	HCAPLUS

Rossy	2001			US 6251463 B1	HCAPLUS
Rowsell	1977			US 4032661 A	HCAPLUS
Rowsell	1979			US 4153679 A	HCAPLUS
Rowsell	1981			US 4296093 A	HCAPLUS
Rule	1928		1347	J.Chem.Soc.	HCAPLUS
Saadali, B	2001	58	1083	Phytochemistry	HCAPLUS
Sako	1999			US 5955066 A	HCAPLUS
Shiroyama	2001			US 6328982 B1	HCAPLUS
Sonnenberg	2002			US 20020173436 A1	HCAPLUS
Tashjian	2003			US 6579513 B1	HCAPLUS
Valentine	2003			US 6579535 B1	HCAPLUS
Vermeer	1997			US 5641480 A	HCAPLUS
Watkins	2002			US 6451844 B1	HCAPLUS
Watson	1979			US 4150052 A	HCAPLUS
Watson	1980			US 4226988 A	HCAPLUS
Winkler	1984			US 4470982 A	HCAPLUS
Wolf	2002			US 6455080 B1	HCAPLUS
Wolf	2003			US 20030082271 A1	
Yeoh	2001			US 6200554 B1	HCAPLUS
Young	2001			US 6248315 B1	HCAPLUS

L111 ANSWER 2 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:34644 HCAPLUS Full-text

DN 142:134213

TI Ester and carboxamide derivatives of E2,E4,Z8-undecatrienoic acid,  
processes for preparing same and their organoleptic uses

IN Dewis, Mark L.; Huber, Michelle E.

PA International Flavors & Fragrances Inc., USA

SO U.S. Pat. Appl. Publ., 10 pp.

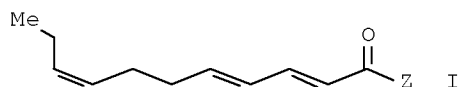
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

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	US 7098350	B2	20060829			
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	EP 1496042	A2	20050112	EP 2004-254095	20040708	<--
	EP 1496042	A3	20050309			
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PRAI	US 2003-618367	A2	20030710	<--		
	US 2004-861751	A	20040604			
OS	MARPAT 142:134213					
GI						





- AB The present invention discloses preparation of E2,E4,Z8-undecatrienoic acid derivs., such as I [Z = OR1, NR2R3; R1 = H, C1-C6 straight chain or branched-chain alkyl, C3-C6 straight chain or branched-chain alkenyl; R2 = H, Me, Et; R3 = Me, Et, Pr, cyclopropyl, iso-Pr, Bu, sec-Bu, iso-Bu, 2-methylbutyl, cyclobutyl, 3,4-methylenedioxyphenyl, cyclopentyl or allyl], and their use in imparting, augmenting and/or enhancing flavors, aromas and somatosensory effects in or to consumable materials such as foods, beverages, skin care products, oral care products, medicinal products and the like. Thus, I [Z = NHCH2CHMe2 (II)] was prepared by the reaction of isobutylamine and E2,E4,Z8-undecatrienoic acid (prepared via oxidation of E2,E4,Z8-undecatrienal with silver(I) oxide). II was used for the enhancement of flavor of alc. beverage and hard candy.
- IC ICM C07C0233-02  
ICS C07D0317-44
- INCL 554035000; X55-422.4; X54-943.6
- CC 23-18 (Aliphatic Compounds)  
Section cross-reference(s): 17, 62, 63
- ST undecatrienoic acid ester carboxamide deriv prepn food cosmetic additive; beverage candy chewing gum toothpaste additive undecatrienoic acid deriv
- IT Carboxylic acids, preparation  
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(derivs.; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)
- IT Carboxylic acids, preparation  
RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(esters; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)
- IT Candy  
(hard; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)
- IT Drug delivery systems  
(nasal; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)
- IT Hygiene  
(oral; preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)
- IT Alcoholic beverages  
Chewing gum  
Colognes  
Cosmetics  
Dentifrices  
Flavoring materials  
Hair preparations  
Skin preparations (pharmaceutical)  
(preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)
- IT Amides, preparation

RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 652970-05-3P

RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 824416-99-1P, E2,E4,Z8-Undecatrienoic acid

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 795309-53-4P 823815-34-5P

RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 67-56-1, Methanol, reactions 78-81-9, Iso-butylamine 124-40-3, Dimethylamine, reactions 541-41-3, Ethyl chloroformate 350696-20-7, E2,E4,Z8-Undecatrienal

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 823815-35-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

IT 121-44-8, Triethylamine, reactions 1310-73-2, Sodium hydroxide, reactions 7647-01-0, Hydrochloric acid, reactions 20667-12-3, Silver(I) oxide

RL: RGT (Reagent); RACT (Reactant or reagent)  
 (preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

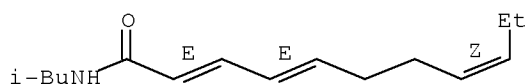
IT 652970-05-3P

RL: COS (Cosmetic use); FFD (Food or feed use); IMF (Industrial manufacture); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of ester and carboxamide derivs. of E2,E4,Z8-undecatrienoic acid and their uses for enhancing flavors, aromas and somatosensory effects in consumable materials)

RN 652970-05-3 HCAPLUS

CN 2,4,8-Undecatrienamide, N-(2-methylpropyl)-, (2E,4E,8Z)- (CA INDEX NAME)

Double bond geometry as shown.



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Albacarys	2002			US 6338855 B1	HCAPLUS
Anon	1981			JP 56087505	HCAPLUS
Anon	1993			WO 9323005	HCAPLUS
Anon	1998			WO 9807404	HCAPLUS
Anon	1999			WO 9907235	HCAPLUS
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Anon				Prior Art Submission	
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Beerse	2001			US 6210695 B1	HCAPLUS
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Bell	2003			US 20030113357 A1	
Boden	2001			US 6303817 B1	HCAPLUS
Borlinghaus	2003			US 6572914 B1	HCAPLUS
Buchel	1984			US 4472421 A	HCAPLUS
Buckingham	2003			US 20030082129 A1	
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Cherukuri	1991			US 5009893 A	HCAPLUS
Coffindaffer	1997			US 5624666 A	HCAPLUS
Crombie	1955		4244	J.Chem.Soc.	HCAPLUS
Cronk	2001			US 20010032645 A1	
Crookham	2003			US 6576228 B1	HCAPLUS
Dahle	2002			US 20020039591 A1	HCAPLUS
Dewis	2003			U. S. Appl. No. 6110	
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Farbood	2001			US 6333180 B1	HCAPLUS
Flammer	2003			U.S. Appl. No. 10643	
Furber	1986		1809	J.Chem.Soc. Perkin T	HCAPLUS
Gaikar	2002			US 6365601 B1	HCAPLUS
Galophin	2002		139	Abs. pf Papers, 224t	
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Gamboa-Leon	2000	28	1019	Biochemical Systemat	HCAPLUS
Gamboa-Leon	2000	28	1019	Biochemical Systemat	HCAPLUS
Gatfield	2004			US 20040241312 A1	
Glenn	2003			US 6544499 B1	HCAPLUS
Goto	2003			US 20030068330 A1	
Grainger	2002			US 6365215 B1	HCAPLUS
Guskey	2001			US 6297203 B1	HCAPLUS
Hall	2003			US 6579514 B1	HCAPLUS
Hammer	2003			US 20030082124 A1	HCAPLUS
He	2000			US 6110520 A	HCAPLUS
Humbert	1977			US 4029759 A	HCAPLUS

Inoue	2003			US 20030035784 A1	
Jacobson	1953	75	2584	Pellitorine Isomers.	HCAPLUS
Jaloner	1980	18	2933	Journal of Polymer S	
Jarboe	1963			US 3111127 A	HCAPLUS
Johnson	2003			US 20030072842 A1	HCAPLUS
Kilcher	2003			US 6576225 B1	HCAPLUS
Kumamoto	2002			US 20020142015 A1	
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Osbakken	2003			US 6576224 B1	HCAPLUS
Ottinger	2001	49	5383	J. Agric. Food Chem.	HCAPLUS
Rameswak	1999	51	729	Phytochemistry	
Rapaport	1998			US 5730965 A	HCAPLUS
Reed	2001			US 6299900 B1	HCAPLUS
Rossy	2001			US 6251463 B1	HCAPLUS
Rowsell	1977			US 4032661 A	HCAPLUS
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Rowsell	1981			US 4296093 A	HCAPLUS
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Saadali	2001	58	1083	Phytochemistry	HCAPLUS
Sako	1999			US 5955066 A	HCAPLUS
Shiroyama	2001			US 6328982 B1	HCAPLUS
Snider	2000	2	407	Organic Letters	HCAPLUS
Sonnenberg	2002			US 20020173436 A1	HCAPLUS
Tanaka	1981	22	3421	Tetrahedron Letters	HCAPLUS
Tashjian	2003			US 6579513 B1	HCAPLUS
Valentine	2003			US 6579535 B1	HCAPLUS
Vermeer	1997			US 5641480 A	HCAPLUS
Watkins	2002			US 6451844 B1	HCAPLUS
Watson	1979			US 4150052 A	HCAPLUS
Watson	1980			US 4226988 A	HCAPLUS
Winkler	1984			US 4470982 A	HCAPLUS
Wolf	2002			US 6455080 B1	HCAPLUS
Wolf	2003			US 20030082271 A1	
Wolfson	2002			US 20020122778 A1	HCAPLUS
Yeoh	2001			US 6200554 B1	HCAPLUS
Young	2001			US 6248315 B1	HCAPLUS
Zimmermann	2001			US PP12213 P2	

L111 ANSWER 3 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:873840 HCAPLUS Full-text

DN 141:325774

TI Sanshool derivatives from Zanthoxylum piperitum as memory enhancers and health foods

IN Yano, Shingo; Nakamura, Tomonori; Ikegami, Fumio

PA Tokiwa Shikubutsu Kagaku Kenkyusho Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

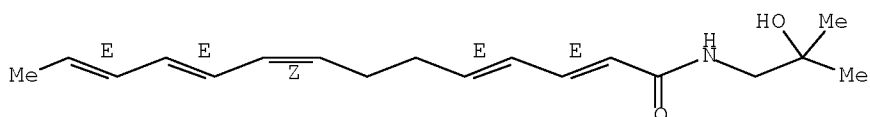
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2004292383	A	20041021	JP 2003-88262	20030327 <--
PRAI	JP 2003-88262		20030327	<--	
OS	MARPAT 141:325774				
AB	Zanthol derivs. from Zanthoxylum piperitum (I; Me(CH <sub>2</sub> ) <sub>n</sub> CONHCH <sub>2</sub> R <sub>1</sub> wherein R <sub>1</sub> = Me, CH <sub>2</sub> OR <sub>2</sub> , CR <sub>3</sub> (CH <sub>3</sub> ) <sub>2</sub> , etc., with R <sub>2</sub> =, H, Me, sugar, R <sub>3</sub> = H, OH) are claimed as memory enhancers and health foods. I were extracted from the above plant, and their effects on learning were studied in mouse water maze test.				
IC	ICM A61K0031-16 ICS A23L0001-30; A61K0031-164; A61K0035-78; A61P0025-28				
CC	1-11 (Pharmacology) Section cross-reference(s): 17				
ST	sanshool deriv Zanthoxylum memory enhancer health food				
IT	Cognition enhancers Health food Learning Zanthoxylum piperitum (sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)				
IT	10076-00-3P, $\beta$ -Sanshool 78886-65-4P, $\gamma$ -Sanshool 78886-66-5P, Hydroxy- $\gamma$ -Sanshool 97465-69-5P, Hydroxy- $\beta$ -Sanshool RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)				
IT	504-97-2, $\alpha$ -Sanshool 83883-10-7, Hydroxy- $\alpha$ -Sanshool RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)				
IT	78886-66-5P, Hydroxy- $\gamma$ -Sanshool 97465-69-5P, Hydroxy- $\beta$ -Sanshool RL: PAC (Pharmacological activity); PUR (Purification or recovery); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (sanshool derivs. from Zanthoxylum piperitum as memory enhancers and health foods)				
RN	78886-66-5 HCAPLUS				
CN	2,4,8,10,12-Tetradecapentaenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,4E,8Z,10E,12E)- (CA INDEX NAME)				

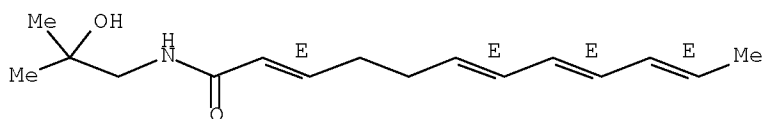
Double bond geometry as shown.



RN 97465-69-5 HCAPLUS

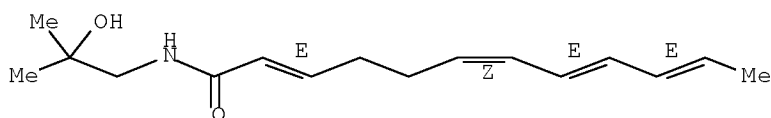
CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6E,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



IT 83883-10-7, Hydroxy- $\alpha$ -Sanshool  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (sanshool derivs. from Zanthoxylum piperitum as memory enhancers and  
 health foods)  
 RN 83883-10-7 HCAPLUS  
 CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-,  
 (2E,6Z,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 4 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN  
 AN 2004:856961 HCAPLUS Full-text  
 DN 141:331119  
 TI Alkyldienamides exhibiting taste and sensory effect in  
 flavor compositions  
 IN Dewis, Mark L.; Huber, Michelle E.; Cossette, Michael V.; Agyemang, David  
 O.  
 PA International Flavors & Fragrances Inc, USA  
 SO U.S. Pat. Appl. Publ., 9 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004202760	A1	20041014	US 2003-411672	20030411 <--
	US 2004202619	A1	20041014	US 2004-783652	20040220 <--
	IN 2004DE00651	A	20060616	IN 2004-DE651	20040331 <--
	BR 2004001566	A	20050830	BR 2004-1566	20040406 <--
	EP 1473287	A2	20041103	EP 2004-252136	20040408 <--
	EP 1473287	A3	20041229		
	EP 1473287	B1	20060621		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	ES 2267004	T3	20070301	ES 2004-252136	20040408 <--
	CN 1593230	A	20050316	CN 2004-10032498	20040409 <--
PRAI	US 2003-411672	A2	20030411	<--	
	US 2004-783652	A	20040220		
OS	MARPAT 141:331119				

AB Alkyldienamide compds. suitable for use as flavoring agents are disclosed. The compds. are used as flavors since they possess umami characteristics or other desirable organoleptic properties.

IC ICM A23L0001-22

INCL 426534000

CC 17-6 (Food and Feed Chemistry)  
Section cross-reference(s): 23, 24, 62

ST alkyldienamide flavor enhancer synthesis food oral  
hygiene additive; nonadienamide dodecadienamide deriv flavor  
enhancer food toothpaste

IT Beverages  
Chewing gum  
Dentifrices  
Flavoring materials  
Food additives  
(alkyldienamides exhibiting taste and sensory effect in  
flavor compns.)

IT Amides, biological studies  
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(alkyldienes; alkyldienamides exhibiting taste and sensory  
effect in flavor compns.)

IT Dentifrices  
(aromatic oil-flavored; alkyldienamides exhibiting taste  
and sensory effect in flavor compns.)

IT Chewing gum  
(bubble gum flavored; alkyldienamides exhibiting  
taste and sensory effect in flavor compns.)

IT Condiments  
(flavor-enhancing; alkyldienamides exhibiting taste  
and sensory effect in flavor compns.)

IT Candy  
(hard, cinnamon-flavored; alkyldienamides exhibiting  
taste and sensory effect in flavor compns.)

IT Beverages  
(lemon-lime flavor; alkyldienamides exhibiting taste  
and sensory effect in flavor compns.)

IT Hygiene  
(oral, products for; alkyldienamides exhibiting taste and  
sensory effect in flavor compns.)

IT Alcoholic beverages  
(peach flavor; alkyldienamides exhibiting taste and  
sensory effect in flavor compns.)

IT 608514-55-2P 608514-56-3P 767329-59-9P 767329-60-2P  
767329-61-3P 767329-62-4P 767329-65-7P 767329-66-8P  
767329-68-0P 767329-69-1P 767329-70-4P 767329-71-5P 767329-72-6P  
773060-63-2P 773060-64-3DP, derivs. 773060-65-4DP, derivs.  
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(alkyldienamides exhibiting taste and sensory effect in  
flavor compns.)

IT 74-89-5, Methylamine, reactions 75-04-7, Ethylamine, reactions  
75-31-0, Isopropylamine, reactions 78-81-9, Isobutylamine 96-15-1,  
2-Methylbutylamine 141-43-5, 2-Ethanolamine, reactions 541-41-3, Ethyl  
chloroformate 765-30-0, Cyclopropylamine 2620-50-0, Piperonylamine  
23605-13-2 94088-26-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkyldienamides exhibiting taste and sensory effect in  
flavor compns.)

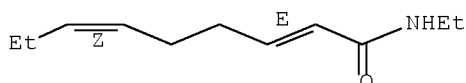
IT 608514-56-3P 767329-59-9P 767329-61-3P  
773060-63-2P

RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(alkyldienamides exhibiting taste and sensory effect in  
flavor compns.)

RN 608514-56-3 HCAPLUS

CN 2,6-Nonadienamide, N-ethyl-, (2E,6Z)- (CA INDEX NAME)

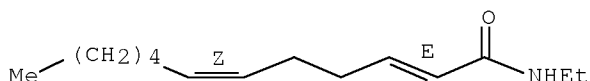
Double bond geometry as shown.



RN 767329-59-9 HCAPLUS

CN 2,6-Dodecadienamide, N-ethyl-, (2E,6Z)- (CA INDEX NAME)

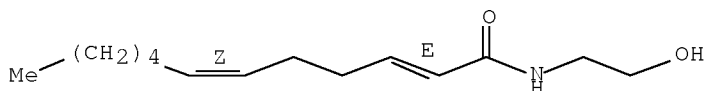
Double bond geometry as shown.



RN 767329-61-3 HCAPLUS

CN 2,6-Dodecadienamide, N-(2-hydroxyethyl)-, (2E,6Z)- (CA INDEX NAME)

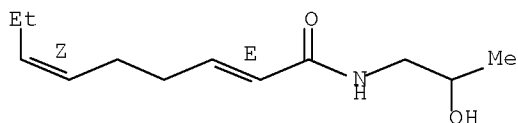
Double bond geometry as shown.



RN 773060-63-2 HCAPLUS

CN 2,6-Nonadienamide, N-(2-hydroxypropyl)-, (2E,6Z)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 5 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:856915 HCAPLUS [Full-text](#)

DN 141:313274

TI Compositions comprising alkyldienamides exhibiting taste and  
sensory effect and use for enhancing flavor in foodstuff  
and beverage

IN Dewis, Mark L.; Huber, Michelle E.; Cossette, Michael V.; Agyemang, David  
O.; Conklin, Garry; Pei, Tao

PA International Flavors & Fragrances Inc, USA



SO U.S. Pat. Appl. Publ., 15 pp., Cont.-in-part of Ser. No. US 2003-411672,  
filed on 11 Apr 2003  
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004202619	A1	20041014	US 2004-783652	20040220 <--
	US 2004202760	A1	20041014	US 2003-411672	20030411 <--
	BR 2004001566	A	20050830	BR 2004-1566	20040406 <--
	EP 1473287	A2	20041103	EP 2004-252136	20040408 <--
	EP 1473287	A3	20041229		
	EP 1473287	B1	20060621		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	ES 2267004	T3	20070301	ES 2004-252136	20040408 <--
	CN 1593230	A	20050316	CN 2004-10032498	20040409 <--
PRAI	US 2003-411672	A2	20030411	<--	
	US 2004-783652	A	20040220		

OS MARPAT 141:313274

AB The present invention relates to novel compds. and a process for augmenting or imparting a taste or somatosensory effect to a foodstuff, chewing gum, medicinal product, toothpaste, alc. beverage, aqueous beverage or soup. The compds. are used as flavors since they possess umami characteristics or other desirable organoleptic properties. The disclosed compds. are defined by the formula R5R4C:C(R3)CON(Y)(X) (X = H, Me, Et, Pr, iPr; Y = Me, Et, cyclopropyl, iPr, Pr, Bu, sec-Bu, iso-Bu, 2-methylbutyl, allyl, cyclobutyl, cyclopentyl, CH2CH(OH)CH3, CH(CH3)CH2OH, CH2C(CH3)OH, CH2CH2OH, CH2CO2CH3, geranyl, neryl, benzo[1,3]dioxol-5-yl; or X and Y together form the structures pyrrolidin-1-yl, 2-carboxypyrrolidin-1-yl, piperidin-1-yl; R3,R4 = Me, H; R5 = Me, Ph, benzyl, Et, Pr, Bu, iPr, phenylethyl, etc.).

IC ICM A61K0009-68

ICS A61K0007-16; A23L0001-221

INCL 424048000; X42-4 4.9; X42-665.0

CC 17-6 (Food and Feed Chemistry)

ST alkyldienamide taste sensory effect enhancing flavor  
foodstuff beverage

IT Alcoholic beverages

Chewing gum

Dentifrices

Flavor

Flavoring materials

Food

Soups

(alkyldienamides exhibiting taste and sensory effect and use  
for enhancing flavor in foodstuff and beverage)

IT Beverages

(aqueous; alkyldienamides exhibiting taste and sensory effect and  
use for enhancing flavor in foodstuff and beverage)

IT Candy

(hard; alkyldienamides exhibiting taste and sensory effect  
and use for enhancing flavor in foodstuff and  
beverage)

IT Saltiness

(salt taste enhancer; alkyldienamides exhibiting  
taste and sensory effect and use for enhancing flavor  
in foodstuff and beverage)

IT Taste

(somatosensory effect; alkyldienamides exhibiting taste and

sensory effect and use for enhancing flavor in  
foodstuff and beverage)

IT 142-47-2, Monosodium glutamate 7647-14-5, Salt, biological studies  
80702-47-2, Ribotide

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(alkyldienamides exhibiting taste and sensory effect and use  
for enhancing flavor in foodstuff and beverage)

IT 608514-55-2P 608514-56-3P 767329-58-8P 767329-59-9P  
767329-60-2P 767329-61-3P 767329-62-4P 767329-63-5P  
767329-64-6P 767329-65-7P 767329-66-8P 767329-67-9P

RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(alkyldienamides exhibiting taste and sensory effect and use  
for enhancing flavor in foodstuff and beverage)

IT 56-40-6, Glycine, reactions 74-89-5, Methylamine, reactions 75-04-7,  
Ethylamine, reactions 75-31-0, Isopropylamine, reactions 78-81-9,  
Isobutylamine 96-15-1, 2-Methylbutylamine 107-11-9, Allylamine  
121-44-8, Triethylamine, reactions 124-40-3, Dimethylamine, reactions  
141-43-5, 2-Ethanolamine, reactions 541-41-3, Ethyl chloroformate  
541-47-9 765-30-0, Cyclopropylamine 2620-50-0, Piperonylamine  
4698-08-2 23605-13-2 55320-96-2 75091-79-1 94088-26-3  
767329-75-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkyldienamides exhibiting taste and sensory effect and use  
for enhancing flavor in foodstuff and beverage)

IT 51552-27-3P 767329-68-0P 767329-69-1P 767329-70-4P 767329-71-5P  
767329-72-6P 767329-73-7P 767329-74-8P 767329-76-0P 767329-77-1P  
767329-78-2P 767329-79-3P 767329-80-6P 767329-81-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(alkyldienamides exhibiting taste and sensory effect and use  
for enhancing flavor in foodstuff and beverage)

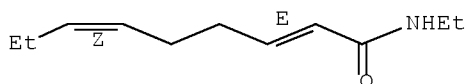
IT 608514-56-3P 767329-59-9P 767329-61-3P

RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation); USES (Uses)  
(alkyldienamides exhibiting taste and sensory effect and use  
for enhancing flavor in foodstuff and beverage)

RN 608514-56-3 HCAPLUS

CN 2,6-Nonadienamide, N-ethyl-, (2E,6Z)- (CA INDEX NAME)

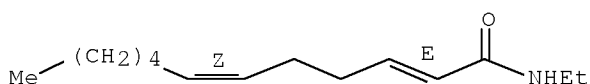
Double bond geometry as shown.



RN 767329-59-9 HCAPLUS

CN 2,6-Dodecadienamide, N-ethyl-, (2E,6Z)- (CA INDEX NAME)

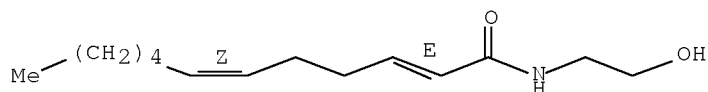
Double bond geometry as shown.



RN 767329-61-3 HCAPLUS

CN 2,6-Dodecadienamide, N-(2-hydroxyethyl)-, (2E,6Z)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 6 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:428897 HCAPLUS Full-text

DN 141:6843

TI Preparation and use of trans-pellitorin as an aromatic substance with salivation-stimulating activity.

IN Gatfield, Ian Lucas; Ley, Jakob Peter; Krammer, Gerhard; Bertram, Heinz-Juergen; Loenneker, Ilse; Machinek, Arnold

PA Symrise G.m.b.H. & Co. K.-G., Germany

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2004043906	A2	20040527	WO 2003-EP12686	20031113 <--
	WO 2004043906	A3	20041007		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10253331	A1	20040603	DE 2002-10253331	20021114 <--
	AU 2003283398	A1	20040603	AU 2003-283398	20031113 <--
	EP 1562893	A2	20050817	EP 2003-775352	20031113 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1711234	A	20051221	CN 2003-80103209	20031113 <--
	JP 2006506479	T	20060223	JP 2004-551009	20031113 <--
	BR 2003016207	A	20060411	BR 2003-16207	20031113 <--
	US 2004241312	A1	20041202	US 2004-483668	20040727 <--
PRAI	DE 2002-10253331	A	20021114	<--	
	WO 2003-EP12686	W	20031113		

AB Use of 2E,4E-decadienoic acid isobutylamide (trans-pellitorin) (I) in the form of an aromatic substance, in particular a saliva stimulating aromatic substance for food, oral hygiene or gustatory prepns. is claimed. Thus, a mixture of Et 2E,4Z-decadienoate, Chirazyme L-2, and isobutylamine was heated at 55° for 4 days to give 99.4% 2E,4Z-decadienoic acid isobutylamide, which was stirred 1 h with iodine in PhMe to give I in >95% purity. I food and oral hygiene compns. are given.

IC ICM C07C0231-00

ICS A61K0007-16

CC 23-18 (Aliphatic Compounds)

Section cross-reference(s): 17, 62

ST dodecadienoate amidation isomerization; pellitorin prepn saliva  
stimulating substance food oral hygiene

IT Chewing gum  
Dentifrices  
Flavoring materials  
Food additives  
Isomerization  
Mouthwashes  
Saliva  
(preparation and use of trans-pellitorin as an aromatic substance with  
salivation-stimulating activity)

IT 639086-18-3P  
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological  
study); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and use of trans-pellitorin as an aromatic substance with  
salivation-stimulating activity)

IT 18836-52-7P, trans-Pellitorin  
RL: COS (Cosmetic use); FFD (Food or feed use); SPN (Synthetic  
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation and use of trans-pellitorin as an aromatic substance with  
salivation-stimulating activity)

IT 639086-18-3P  
RL: BPN (Biosynthetic preparation); RCT (Reactant); BIOL (Biological  
study); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and use of trans-pellitorin as an aromatic substance with  
salivation-stimulating activity)

RN 639086-18-3 HCAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4Z)- (CA INDEX NAME)

Double bond geometry as shown.

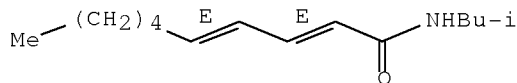


IT 18836-52-7P, trans-Pellitorin  
RL: COS (Cosmetic use); FFD (Food or feed use); SPN (Synthetic  
preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation and use of trans-pellitorin as an aromatic substance with  
salivation-stimulating activity)

RN 18836-52-7 HCAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 7 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:101119 HCAPLUS [Full-text](#)

DN 140:145102

TI Flavorant aliphatic or aromatic unsatd. amide compounds for  
food use

IN Galopin, Christophe; Goeke, Andreas; Furrer, Stefan  
 PA Givaudan SA, Switz.  
 SO PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004011415	A1	20040205	WO 2003-CH500	20030723 <--
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2003245800	A1	20040216	AU 2003-245800	20030723 <--
	EP 1525184	A1	20050427	EP 2003-737827	20030723 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1668578	A	20050914	CN 2003-816951	20030723 <--
	JP 2005533897	T	20051110	JP 2004-523719	20030723 <--
	IN 2004CN03060	A	20060217	IN 2004-CN3060	20041231 <--
	US 2005233042	A1	20051020	US 2005-522113	20050125 <--
PRAI	US 2002-398449P	P	20020725	<--	
	WO 2003-CH500	W	20030723	<--	

OS MARPAT 140:145102

AB Use as a flavor ingredient of an aliphatic or aromatic unsatd. amide of formula (I, R''(CH)<sub>n</sub>CONHCH<sub>2</sub>C(R')(R''')(R'''')), where R' is H or OH, n is 1 or 2; R'' is RvCHCH(CH<sub>2</sub>)<sub>m</sub> when n is 2, m being 1,2 or 3; R''' and R'''' are H, C1-C4 alkyl, benzyl or form a 5- or 6-membered carbocyclic ring with the carbon to which they are attached; and Rv is alkyl or alkenyl is described. When n is 1, R'' may also be a Ph group.

IC ICM C07C0233-09

ICS C07C0233-20; A23L0001-226

CC 17-6 (Food and Feed Chemistry)

Section cross-reference(s): 23

ST flavoring material aliph arom unsatd amide isobutyl undecatrienamide

IT Flavoring materials

Soups

(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

IT Amides, biological studies

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)

(unsatd.; flavorant aliphatic or aromatic unsatd. amide compds. for food use)

IT 652970-05-3P 652970-06-4P

RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

IT 621-82-9, Cinnamic acid, reactions 4634-89-3, (Z)-Hex-4-enal 62872-62-2 67629-62-3

RL: RCT (Reactant); RACT (Reactant or reagent)

(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

IT 102-92-1P 6299-56-5P 652970-07-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

IT 652970-05-3P 652970-06-4P

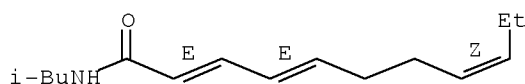
RL: FFD (Food or feed use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

RN 652970-05-3 HCAPLUS

CN 2,4,8-Undecatrienamide, N-(2-methylpropyl)-, (2E,4E,8Z)- (CA INDEX NAME)

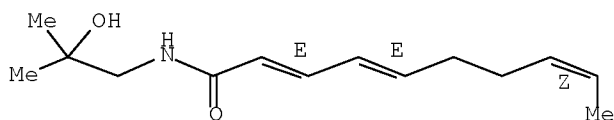
Double bond geometry as shown.



RN 652970-06-4 HCAPLUS

CN 2,4,8-Decatrienamide, N-(2-hydroxy-2-methylpropyl)-, (2E,4E,8Z)- (CA INDEX NAME)

Double bond geometry as shown.



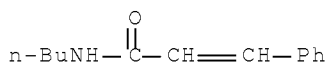
IT 6299-56-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(flavorant aliphatic or aromatic unsatd. amide compds. for food use)

RN 6299-56-5 HCAPLUS

CN 2-Propenamide, N-butyl-3-phenyl- (CA INDEX NAME)



#### RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Goeke, A	2002			US 2002081370 A1	
Kikuzaki, H	1993	57	1329	BIOSCIENCE, BIOTECHN	HCAPLUS
Lion Corp	1985			JP 60075424 A	HCAPLUS
Nakatani, N	1992	56	759	BIOSCIENCE BIOTECHNO	HCAPLUS
Ramsewak, R	1999	51	729	PHYTOCHEMISTRY	HCAPLUS

Sumitomo Chem Co Ltd |1979 | | |JP 54117476 A |HCAPLUS  
Sumitomo Chem Co Ltd |1981 | | |JP 56087504 A |HCAPLUS

L111 ANSWER 8 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2004:2835 HCAPLUS Full-text

DN 140:59332

TI Amidation method for the production of cis-pellitorin and its use as a  
flavoring agent and an odorant

IN Gatfield, Ian-Lucas; Ley, Jakob Peter; Foerstner, Jan; Krammer, Gerhard;  
Machinek, Arnold

PA Symrise G.m.b.H. & Co. K.-G., Germany

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004000787	A2	20031231	WO 2003-EP6545	20030620 <--
	WO 2004000787	A3	20040805		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
	DE 10227462	A1	20040108	DE 2002-10227462	20020620 <--
	DE 10227462	A9	20050728		
	AU 2003246570	A1	20040106	AU 2003-246570	20030620 <--
	EP 1517880	A2	20050330	EP 2003-760673	20030620 <--
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
	US 2005234132	A1	20051020	US 2004-518074	20041216 <--
PRAI	DE 2002-10227462	A	20020620 <--		
	WO 2003-EP6545	W	20030620 <--		

AB A method for producing 2E,4Z-decadienoic acid isobutylamide (i.e., cis-pellitorin) is described as is its use as a pungent agent and a flavoring that generates heat, in foods, oral hygiene compns., or gourmet prepsns.

IC ICM C07C0231-00

CC 23-18 (Aliphatic Compounds)

Section cross-reference(s): 17, 45, 62

ST decadienoic acid isobutylamide prepn flavoring agent odorant

IT Amides, preparation

RL: FFD (Food or feed use); PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(E,4Z-decadienoic acid isobutylamide; amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

IT Flavoring materials

Food

Odor and Odorous substances

(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

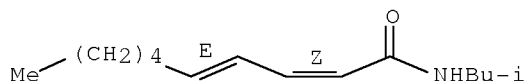
IT Hygiene

(oral; amidation method for the production of cis-pellitorin and its use as

a flavoring agent and an odorant and in compns. for)

- IT Amidation  
(transamidation, enzymic; amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
- IT 73785-31-6 73785-32-7 175288-20-7 625092-39-9  
639086-19-4 639086-20-7 639086-21-8  
RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(additive; amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
- IT 18836-52-7P  
RL: FFD (Food or feed use); MOA (Modifier or additive use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(amidation method for the production of cis-pellitorin and conversion to trans-pellitorin)
- IT 639086-18-3P  
RL: FFD (Food or feed use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
- IT 60-29-7, Diethylether, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
- IT 1310-58-3, Potassium hydroxide, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
- IT 9001-62-1, Chirazyme L-2  
RL: CAT (Catalyst use); USES (Uses)  
(in an amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
- IT 3025-30-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in an amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
- IT 175288-20-7 625092-39-9  
RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(additive; amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)
- RN 175288-20-7 HCAPLUS
- CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2Z,4E)- (CA INDEX NAME)

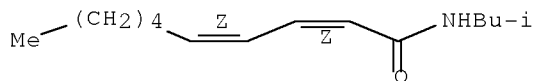
Double bond geometry as shown.



- RN 625092-39-9 HCAPLUS
- CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2Z,4Z)- (CA INDEX NAME)

Double bond geometry as shown.





IT 18836-52-7P

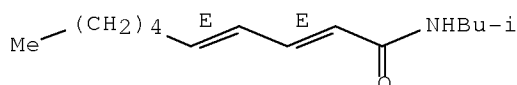
RL: FFD (Food or feed use); MOA (Modifier or additive use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(amidation method for the production of cis-pellitorin and conversion to trans-pellitorin)

RN 18836-52-7 HCAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



IT 639086-18-3P

RL: FFD (Food or feed use); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(amidation method for the production of cis-pellitorin and its use as a flavoring agent and an odorant)

RN 639086-18-3 HCAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4Z)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 9 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2003:944238 HCAPLUS [Full-text](#)

DN 140:180285

TI Pungent and tingling compounds in Asian cuisine

AU Galopin, Christophe C.; Furrer, Stefan M.; Goeke, Andreas

CS Givaudan Flavors R&D, Ingredient Systems, Cincinnati, OH, 45069, USA

SO ACS Symposium Series (2004), 867(Challenges in Taste Chemistry and Biology), 139-152

CODEN: ACSMC8; ISSN: 0097-6156

PB American Chemical Society

DT Journal; General Review

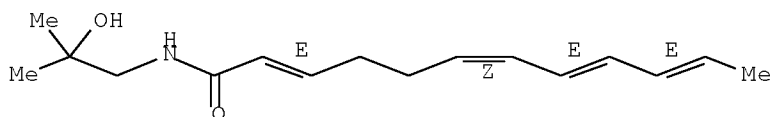
LA English

AB A review. Southern Asian cuisine is well known for its use of flavorful and pungent spices. The sanshool chems., such as  $\alpha$ -hydroxy-sanshool from the

Japanese Sanchoo pepper and other Asian peppers, are particularly interesting because they not only give a hot sensation in the mouth cavity but also a tingling effect on the tongue. In order to understand the effect of the sanshool chems. the authors have synthesized a variety of derivs. Tasting of those derivs. provided information about Structure Activity Relationship (SAR) for the tingling effect exhibited by these chems. Based on this study the authors are able to propose a minimal structure required for the tingling effect. We also used this SAR knowledge to design stable compds. with potential tingling effect.

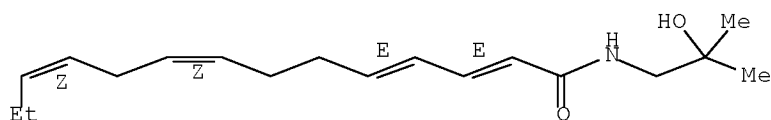
CC 17-0 (Food and Feed Chemistry)  
 ST review Asian food additive Sanshoo bungeanool deriv pungency  
 tingling; Sanshoo bungeanool deriv structure pungency tingling review  
 IT Taste  
 (pungency; pungent and tingling compds. in Asian cuisine)  
 IT Structure-activity relationship  
 (taste; pungent and tingling Sanshoo and bungeanool compds.  
 in Asian cuisine)  
 IT Food functional properties  
 (tingling; pungent and tingling Sanshoo and bungeanool compds. in Asian  
 cuisine)  
 IT 83883-10-7D,  $\alpha$ -Hydroxy-sanshool, derivs.  
 117568-40-8D, Bungeanool, derivs.  
 RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL  
 (Biological study); USES (Uses)  
 (pungent and tingling Sanshoo and bungeanool compds. in Asian cuisine)  
 IT 83883-10-7D,  $\alpha$ -Hydroxy-sanshool, derivs.  
 117568-40-8D, Bungeanool, derivs.  
 RL: BSU (Biological study, unclassified); FFD (Food or feed use); BIOL  
 (Biological study); USES (Uses)  
 (pungent and tingling Sanshoo and bungeanool compds. in Asian cuisine)  
 RN 83883-10-7 HCAPLUS  
 CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-,  
 (2E,6Z,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



RN 117568-40-8 HCAPLUS  
 CN 2,4,8,11-Tetradecatetraenamide, N-(2-hydroxy-2-methylpropyl)-,  
 (2E,4E,8Z,11Z)- (CA INDEX NAME)

Double bond geometry as shown.



#### RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
----------------------------	---------------	--------------	-------------	--------------------------	--------------------

Bryant, B	1999	842	452	Brain Research	HCAPLUS
Chen, I	1999	52	357	Phytochemistry	HCAPLUS
Crombie, L	1952		4338	J Chem Soc	HCAPLUS
Crombie, L	1955		995	J Chem Soc	HCAPLUS
Crombie, L	1957		2760	J Chem Soc	HCAPLUS
Crombie, L	1985	26	2477	Tetrahedron Lett	HCAPLUS
Jacobson, M	1967	32	1646	J Org Chem	HCAPLUS
Mizutani, K	1988	36	2362	Chem Pharm Bull	HCAPLUS
Sonnet, P	1969	34	1147	J Org Chem	HCAPLUS
van der Linde, L	1985			EP 0173395 A1	HCAPLUS
Ward, J	1969	88	177	Recl Trav Chim Pays-	HCAPLUS
Xiong, Q	1997	46	1123	Phytochemistry	HCAPLUS

L111 ANSWER 10 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2002:842774 HCAPLUS Full-text

DN 138:284551

TI Pungency and tingling: sensations and mechanisms of trigeminal chemical sensitivity

AU Bryant, Bruce; Mezzine, Igor

CS Monell Chemical Senses Center, Philadelphia, PA, 19104, USA

SO ACS Symposium Series (2002), 825(Chemistry of Taste), 202-212

CODEN: ACSMC8; ISSN: 0097-6156

PB American Chemical Society

DT Journal

LA English

AB Distinct from taste and olfaction, the trigeminal nerve is the third sensory pathway in the cranial sensory system that is sensitive to chemical stimuli. Trigeminal nerve endings in the nose and mouth contribute to flavor through the sensory modalities of touch, thermal sensation and pain. The best-characterized example of chemical induced trigeminal sensation is the pungency produced by hot peppers, the result of the activation of ion channels on pain-sensitive and thermally sensitive nerve fibers. Compds. commonly found in spices, food and beverages also elicit sensations other than pain. Menthol and other related compds. stimulate a subclass of thermal nerve endings to produce cooling. Yet other compds., stimuli as diverse as CO<sub>2</sub> and fatty acids as well as some unsatd. alkylamides found in non-capsicum peppers and other plants, activate cooling-sensitive and tactile nerve endings. This particular combination of modalities gives rise to the novel tingling sensations associated with these stimuli.

CC 13-6 (Mammalian Biochemistry)

ST hydroxysanshool calcium pungency tingling trigeminal neurotransmission flavor

IT Taste

(pungency; pungency and tingling sensations and mechanisms of trigeminal chemical sensitivity)

IT 7440-70-2, Calcium, biological studies 83883-10-7, Hydroxy- $\alpha$ -sanshool

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(effects of hydroxy- $\alpha$ -sanshool on intraneuronal calcium and taste pungency in mechanisms of trigeminal chemical sensitivity)

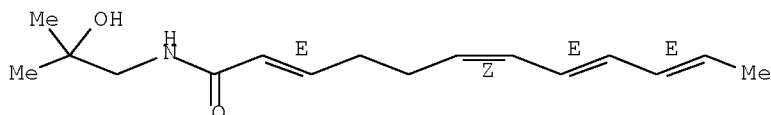
IT 504-97-2,  $\alpha$ -Sanshool 7328-34-9 10076-00-3,  $\beta$ -Sanshool 18744-21-3 18836-52-7, Pellitorine 25394-57-4, Spilanthol 30361-33-2 65937-49-7 68125-01-9 73785-32-7 97465-69-5, Hydroxy- $\beta$ -sanshool 252193-26-3, Hydroxy- $\epsilon$ -sanshool 499136-10-6 499136-12-8

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(pungency and tingling sensations and mechanisms of trigeminal chemical sensitivity)

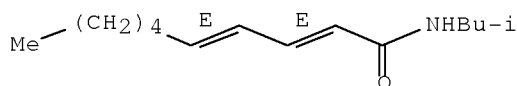
IT 83883-10-7, Hydroxy- $\alpha$ -sanshool  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (effects of hydroxy- $\alpha$ -sanshool on intraneuronal calcium and  
 taste pungency in mechanisms of trigeminal chemical sensitivity)  
 RN 83883-10-7 HCAPLUS  
 CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-,  
 (2E,6Z,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



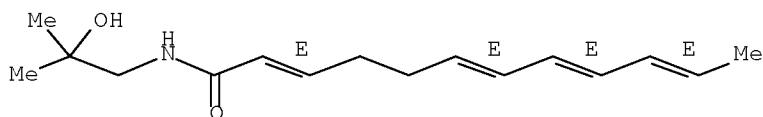
IT 18836-52-7, Pellitorine 97465-69-5, Hydroxy- $\beta$ -  
 sanshool 252193-26-3, Hydroxy- $\epsilon$ -sanshool  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (pungency and tingling sensations and mechanisms of trigeminal chemical  
 sensitivity)  
 RN 18836-52-7 HCAPLUS  
 CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



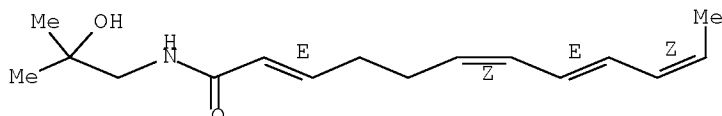
RN 97465-69-5 HCAPLUS  
 CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-,  
 (2E,6E,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



RN 252193-26-3 HCAPLUS  
 CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-,  
 (2E,6Z,8E,10Z)- (CA INDEX NAME)

Double bond geometry as shown.



## RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
=====	=====	=====	=====	=====	=====
Anon	1971		445	Fenaroli's Handbook	
Bryant, B	1999	842	452	Brain Res	HCAPLUS
Caterina, M	1997	389	816	Nature	HCAPLUS
Craig, A	1994	265	252	Science	MEDLINE
Duke, J	1985			CRC Handbook of Medi	
Garnsworthy, R	1988	59	1116	J Neurophysiol	MEDLINE
Green, B	1992	17	435	Chemical Senses	HCAPLUS
Greger, H	1984	50	366	Planta Medica	HCAPLUS
Hegnauer, R	1977			The Biology and Chem	
Holzer, P	1991	43	143	Pharmacol Rev	HCAPLUS
Jacobson, M	1948	70	4234	J Am Chem Soc	HCAPLUS
Kashiwada, Y	1997	44	1125	Phytochem	HCAPLUS
Liu, L	1996	76	1858	J Neurophysiol	HCAPLUS
Martenson, M	1997	761	71	Brain Res	HCAPLUS
Schmelz, M	1997	17	8003	J Neurosci	HCAPLUS
Walpole, C	1993	36	2381	J Med Chem	HCAPLUS
Yasuda, I	1981	29	1791	Chem Pharm Bull	HCAPLUS

L111 ANSWER 11 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1999:297270 HCAPLUS Full-text

DN 130:329049

TI Trigeminal sensory stimuli and animal repellents from plants

IN Bryant, Bruce P.; Mezzine, Igor A.; Epple, Gisela M.

PA Monell Chemical Senses Center, USA

SO PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 9921425	A1	19990506	WO 1998-US22537	19981023 <--
	W: CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,				
	PT, SE				

PRAI US 1997-957112 A 19971024 <--

AB Novel uses for compds. isolated from the fruit of Xanthoxylum and echinacea species, and similar compds. from other spice and flowering species, and the oil exts. from which they are isolated, are disclosed. The novel uses include flavor enhancers, additives for oral, hair, and skin care products, and animal repellents. An Et acetate extract of Xanthoxylum fruit was prepared, then evaporated to obtain an oil-like black-brown liquid of which hydroxy- $\alpha$ -sanshool (I) was separated. I induced increase in calcium in neurons that were sensitive or insensitive to capsaicin. Twenty hour food-deprived rats consumed significantly less rat chow than had been treated with a crude vegetable oil suspension of Xanthoxylum extract than rats chow treated with a similar oil suspension of an extract made of equal weight of cinnamon.

IC ICM A01N0065-00

CC 62-5 (Essential Oils and Cosmetics)  
Section cross-reference(s): 1, 5, 17

IT Bird (Aves)  
(food repellents for; trigeminal sensory stimuli and animal repellents from plants)

IT 83883-10-7, Hydroxy- $\alpha$ -sanshool

RL: BAC (Biological activity or effector, except adverse); BOC (Biological

occurrence); BSU (Biological study, unclassified); BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(trigeminal sensory stimuli and animal repellents from plants)

IT 83883-10-7, Hydroxy- $\alpha$ -sanshool

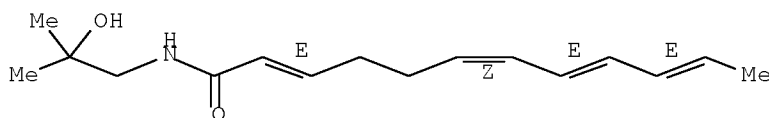
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)

(trigeminal sensory stimuli and animal repellents from plants)

RN 83883-10-7 HCAPLUS

CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-, (2E,6Z,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



# RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	Referenced File
Wunderlich	1995			US 5401502 A	HCAPLUS

L111 ANSWER 12 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:155788 HCAPLUS Full-text

DN 126:261550

TI Amides of the fruit of Zanthoxylum spp

AU Kashiwada, Yoshiki; Ito, Chikashi; Katagiri, Hitoshi; Mase, Izumi; Komatsu, Katsuko; Namba, Tsuneo; Ikeshiro, Yasumasa

CS Niigata College Pharmacy, Niigata, 950-21, Japan

SO Phytochemistry (1997), 44(6), 1125-1127

CODEN: PYTCAS; ISSN: 0031-9422

PB Elsevier

DT Journal

LA English

AB Examination of the amide constituents in Budo-Zanthoxylum fruit, the most traded com. Zanthoxylum fruit in the Japanese market, has led to the isolation of a new amide, along with  $\alpha$ -,  $\beta$ -,  $\gamma$ -, hydroxy- $\alpha$ -, hydroxy- $\beta$ - and hydroxy- $\gamma$ -sanshools. The structure of the new amide was assigned as (2E,4E,8E,10E,12E)-N-isobutyl-2,4,8,10,12-tetradecapentaenamide by spectral examination

CC 11-1 (Plant Biochemistry)

Section cross-reference(s): 17, 26

IT 504-97-2P,  $\alpha$ -Sanshool 10076-00-3P,  $\beta$ -Sanshool 78886-65-4P,  $\gamma$ -Sanshool 78886-66-5P, Hydroxy- $\gamma$ -sanshool

83883-10-7P, Hydroxy- $\alpha$ -sanshool 97465-69-5P

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

(amides of Zanthoxylum fruit)

IT 78886-66-5P, Hydroxy- $\gamma$ -sanshool 83883-10-7P,

Hydroxy- $\alpha$ -sanshool 97465-69-5P

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence);

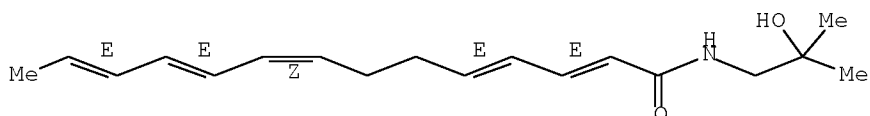
## PREP (Preparation)

(amides of Zanthoxylum fruit)

RN 78886-66-5 HCAPLUS

CN 2,4,8,10,12-Tetradecapentaenamide, N-(2-hydroxy-2-methylpropyl)-,  
(2E,4E,8Z,10E,12E)- (CA INDEX NAME)

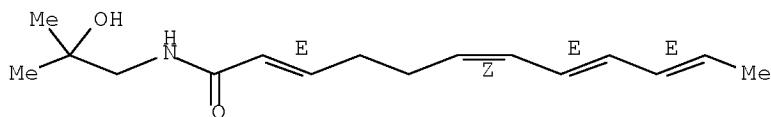
Double bond geometry as shown.



RN 83883-10-7 HCAPLUS

CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-,  
(2E,6Z,8E,10E)- (CA INDEX NAME)

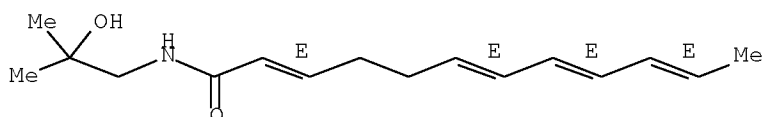
Double bond geometry as shown.



RN 97465-69-5 HCAPLUS

CN 2,6,8,10-Dodecatetraenamide, N-(2-hydroxy-2-methylpropyl)-,  
(2E,6E,8E,10E)- (CA INDEX NAME)

Double bond geometry as shown.



L111 ANSWER 13 OF 13 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1993:190280 HCAPLUS Full-text

DN 118:190280

TI Amides from supercritical fluid extracts of muntok pepper

AU Kollmannsberger, H.; Nitz, S.

CS Inst. Lebensmitteltechnol. Anal. Chem., Tech. Univ. Muenchen, Freising,  
W-8050, GermanySO Chemie, Mikrobiologie, Technologie der Lebensmittel (1992),  
14(3/4), 87-94

CODEN: CMTLBX; ISSN: 0366-7154

DT Journal

LA German

AB In supercrit. fluid exts. of Muntok pepper, 21 piperidides, 7 pyrrolidides,  
and 7 isobutylamides of various saturated and unsatd. fatty acids and 3,4-  
methylenedioxybenzyl-substituted carbonic acids were separated by gas  
chromatog. (GC) and identified by mass spectrometry (GC-MS) and in some cases

by IR spectroscopy (GC-FTIR). Their sensorial contributions and physiolo-  
 effects are briefly discussed.

CC 17-6 (Food and Feed Chemistry)

IT Amides, biological studies

RL: BIOL (Biological study)

(of Muntok pepper flavor)

IT Flavor

(of Muntok pepper, piperidides and pyrrolidides and isobutylamides of)

IT 94-62-2, Piperin 94-62-2 583-34-6, Piperettin 618-42-8,  
 Acetylpiiperidide 2591-86-8, Formylpiiperidide 4629-02-1,  
 Hexadecanoylpiiperidide 5299-66-1, Dodecanoylpiiperidide  
 18836-52-7 23512-46-1 24738-51-0 25924-78-1, Piperylin  
 27845-72-3 30505-89-6 30505-92-1 42997-42-2 54794-69-3  
 54794-70-6 56630-42-3, 9-Octadecenoylpiiperidide 65937-45-3  
 78910-33-5 82857-82-7 91487-76-2 117137-69-6 145398-89-6  
 145398-91-0 145398-95-4 145427-76-5 147030-02-2 147030-03-3  
 147030-04-4 147030-05-5 147030-06-6 147030-09-9 147030-13-5

RL: BIOL (Biological study)

(of Muntok pepper aroma)

IT 18836-52-7

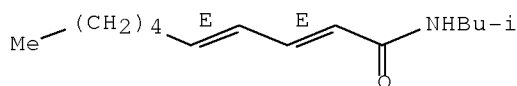
RL: BIOL (Biological study)

(of Muntok pepper aroma)

RN 18836-52-7 HCAPLUS

CN 2,4-Decadienamide, N-(2-methylpropyl)-, (2E,4E)- (CA INDEX NAME)

Double bond geometry as shown.



=> d his

(FILE 'HOME' ENTERED AT 13:33:28 ON 26 MAR 2008)

SET COST OFF

FILE 'HCAPLUS' ENTERED AT 13:33:56 ON 26 MAR 2008

L1 1 S US20050233042/PN OR (US2005-522113# OR WO2003-CH500)/AP,PRN  
 E GALOPIN/AU  
 L2 30 S E4,E5,E8-E10  
 E GOEKE/AU  
 L3 28 S E3,E6  
 E GEOKE/AU  
 E GOKE/AU  
 E FURRER/AU  
 E FURRER S/AU  
 L4 30 S E3-E6  
 E FUERRER/AU  
 E GIVAUDAN/CO  
 L5 1348 S E3-E96  
 E E82+ALL  
 L6 1845 S E2+RT OR E2-E50/PA,CS  
 SEL RN L1

FILE 'REGISTRY' ENTERED AT 13:36:38 ON 26 MAR 2008

L7 9 S E1-E9



L8 3 S L7 AND N/ELS AND C>=10 NOT P/ELS

FILE 'HCAPLUS' ENTERED AT 13:39:06 ON 26 MAR 2008

L9 68 S L2-L4 NOT L1

FILE 'REGISTRY' ENTERED AT 13:39:19 ON 26 MAR 2008

FILE 'HCAPLUS' ENTERED AT 13:39:19 ON 26 MAR 2008

L10 TRA L9 1- RN : 837 TERMS

FILE 'REGISTRY' ENTERED AT 13:39:21 ON 26 MAR 2008

L11 837 SEA L10

L12 16 S L11 AND 1/O AND 1/N AND 4/ELC.SUB

L13 24 S L11 AND 2/O AND 1/N AND 4/ELC.SUB

L14 2 S L13 AND (C18H29NO2 OR C16H25NO2) NOT C6/ES

L15 5 S L8,L14  
E C1317 N O/MF  
E C13H17NO/MF

L16 2287 S E3 AND 46.150.18/RID

L17 51 S L16 AND 2 PROPENAMIDE

L18 19 S L17 AND 3 PHENYL

L19 6 S L18 AND METHYLPROPYL

L20 3 S L19 AND 2 METHYLPROPYL  
E C11H19NO/MF

L21 1899 S E3

L22 1681 S L21 AND NR>=1

L23 218 S L21 NOT L22

L24 4 S L23 AND METHYLPROPYL

L25 1 S L24 AND HEPTADIENAMIDE  
E C10H17NO2/MF

L26 2613 S E3

L27 2201 S L26 AND NR>=1

L28 412 S L26 NOT L27

L29 193 S L28 NOT ESTER

L30 177 S L29 NOT CYAN?

L31 148 S L30 NOT NITRILE

L32 132 S L31 NOT NITRO

L33 115 S L32 NOT METHOXY  
E C14H25NO/MF

L34 926 S E3

L35 819 S L34 AND NR>=1

L36 107 S L34 NOT L35

L37 97 S L36 NOT (NITRO OR NITRILE OR CYAN? OR ESTER)

L38 13 S L37 AND METHYLPROPYL

L39 6 S L38 AND 2 4  
E C14H25NO2/MF

L40 1136 S E3

L41 952 S L40 AND NR>=1

L42 184 S L40 NOT L41

L43 62 S L42 NOT (NITRO OR NITRILE OR CYAN? OR ESTER)

L44 60 S L43 NOT ACETATE

L45 52 S L44 NOT OXIME  
E C10H17NO2/MF

L46 15 S L15,L20,L25,L39  
SEL RN 11 14

L47 13 S L46 NOT E1-E2  
E C14H23NO2/MF

L48 1926 S E3

L49 1833 S L48 AND NR>=1

L50 93 S L48 NOT L49

L51 92 S L50 NOT HYDROXYETHYL  
L52 28 S L51 NOT (NITRO OR NITRILE OR CYAN? OR ESTER)  
L53 26 S L52 NOT ?NITRIL?/CNS  
L54 1 S L53 AND DECATRIENAMIDE AND HYDROXY AND METHYLPROPYL  
L55 1 S L50 AND METHYLPROPYL AND HYDROXY  
L56 13 S L47,L54,L55  
L57 2 S L46 NOT L56  
L58 STR  
L59 50 S L58  
L60 42913 S L58 FUL  
L61 STR L58  
L62 50 S L61 CSS SAM SUB=L60  
L63 1639 S L61 CSS FUL SUB=L60  
SAV TEMP L63 DEES522A/A  
L64 STR L58  
L65 4 S L64 CSS SAM SUB=L63  
L66 94 S L64 CSS FUL SUB=L63  
SAV TEMP L66 DEES522B/A  
L67 3 S L66 AND NC>=2  
L68 2 S L67 NOT C42H70O35  
L69 1 S L67 NOT L68  
L70 93 S L66 NOT L69  
L71 103 S L56,L70  
L72 STR L64  
L73 2 S L72 SAM SUB=L63  
L74 22 S L72 FUL SUB=L63  
SAV TEMP L74 DEES522C/A  
L75 4 S L74 NOT L71  
L76 107 S L71,L74  
SAV TEMP L76 DEES522D/A

FILE 'HCAPLUS' ENTERED AT 14:23:18 ON 26 MAR 2008

L77 434 S L76  
L78 2 S L77 AND L1-L6  
L79 2 S L77 AND GIVAUDAN?/CO,PA,CS  
L80 2 S L78,L79  
SEL RN

FILE 'REGISTRY' ENTERED AT 14:24:01 ON 26 MAR 2008

L81 11 S E1-E11  
L82 2 S L81 AND N/ELS NOT L76  
L83 1 S L82 AND C13H17NO

FILE 'HCAPLUS' ENTERED AT 14:25:09 ON 26 MAR 2008

L84 19 S L83  
L85 1 S L1-L6 AND L84  
L86 2 S L80,L85  
L87 446 S L77,L84  
L88 309 S L87 AND PY<=2003 NOT P/DT  
L89 42 S L87 AND (PD<=20030723 OR PRD<=20030723 OR AD<=20030723) AND P  
L90 351 S L88,L89  
L91 7 S L90 AND (L77 OR L84) (L)FFD/RL  
E FLAVOR/CT  
L92 31940 S E3-E8 OR E22-E35  
E E3+ALL  
L93 29719 S E2,E3,E5-E9  
E E11+ALL  
L94 21825 S E2,E9,E10  
E E12+ALL  
L95 6113 S E4,E5

L96 7 S L90 AND L92-L95  
L97 9 S L86,L91,L96  
E TASTE/CT  
L98 8336 S E3-E15  
E E3+ALL  
L99 7821 S E4  
E E7+ALL  
L100 1629 S E15+OLD  
L101 3 S L90 AND L98-L100  
L102 11 S L97,L101  
L103 11 S L102 AND (TASTE OR FLAVOR? OR FLAVOUR?)  
L104 11 S L102 AND (FEED? OR FOOD?)/CW,CT,SC,SX,BI  
L105 11 S L102-L104  
L106 18 S L90 AND (FEED? OR FOOD?)/CW,CT,SC,SX,BI  
L107 12 S L90 AND (TASTE OR FLAVOR? OR FLAVOUR?)  
L108 9 S L106,L107 NOT L105  
SEL AN 2 4  
L109 2 S L108 AND E1-E4  
L110 13 S L105,L109  
L111 13 S L110 AND L1-L6,L77-L80,L84-L110

FILE 'REGISTRY' ENTERED AT 14:36:46 ON 26 MAR 2008

FILE 'HCAPLUS' ENTERED AT 14:37:37 ON 26 MAR 2008

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